

Date Mailed: April 19, 2006

Sheet 1 of 6

Form 1449*	Docket Number: G&C 30794.93-US-WO	Application Number: 10/537,644
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION FOR TRADEMARK REGISTRATION		
	Applicant: Benjamin A. Haskell et al.	
	Filing Date: June 6, 2005	Group Art Unit: 2823



U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
WC	6,900,070	05/31/2005	Craven et al.			
WC	6,645,295	11/11/2003	Koike et al.			
WC	6,635,901	10/21/2003	Sawaki et al.			
WC	6,623,560	09/2003	Biwa et al.			
WC	6,602,763	08/05/2003	Davis et al.			
WC	6,586,316	07/01/03	Tsuda et al.			
WC	6,582,986	06/24/2003	Kong et al.			
WC	6,441,391	08/27/2002	Ohno et al.			
WC	6,413,627	07/02/2002	Motoki et al.			
WC	6,350,666	02/26/2002	Kryliouk			
WC	6,268,621	07/2001	Emmi et al.			
WC	6,180,270	01/30/2001	Cole et al.			
WC	6,177,292	01/23/2001	Hong et al.			
WC	6,156,581	12/2000	Vaudo et al.			
WC	6,153,010	11/2000	Kiyoku et al.			
WC	6,051,849	04/2000	Davis et al.			
WC	2004/0108513	06/10/2004	Narukawa et al.			
WC	2003/0114017	06/2003	Wong et al.			
WC	2002/0047113	04/25/2002	Ohno et al.			
WC	2001/0029086	10/11/2001	Ogawa et al.			

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FOREIGN PATENTS							
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
WC	WO 2004/061969	07/22/2004	PCT				
WC	WO 2005/064643	07/14/2005	PCT				
WC	WO 2004/061909	07/22/2004	PCT				
WC	0 942 459	09/15/1999	Europe				
WC	2001 257166	09/21/2001	Japan (Abstract only)				
WC	2002 076329	03/15/2002	Japan (Abstract only)				
WC	2002 076521	03/15/2002	Japan (Abstract only)				

## NON-PATENT DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

WC	1	Wang, F. et al., "Crystal Tilting in the Epitaxial Laterally Overgrown GaN Films on Sapphire Substrate by Hydride Vapor Phase Epitaxy", Solid State and Integrated-Circuit Technology Proceedings, 6 <sup>th</sup> International Conference, October 2001, Vol. 2, pp. 1998-1201.
WC	2	Maruska, H.P. et al., "Development of 50 mm Diameter Non-Polar Gallium Nitride Substrates for Device Applications", International Conference on Indium Phosphide and Related Materials, 16 May 2003, pp. 567-570.
WC	3	Craven, M.D., et al., "Structural characterization of nonpolar (1120) $\alpha$ -plane GaN thin films grown on (1102) $\alpha$ -plane sapphire", Applied Physics Letters, Vol. 81, No. 3, 15 July 2002, pages 469-471, XP002250684
WC	4	Dupuis, R.D., et al., "Selective-area and lateral epitaxial overgrowth of III-N materials by metalorganic chemical vapor deposition", Journal of Crystal Growth, Vol. 195, No. 1-4, 15 December 1998, pages 340-345, XP004154285
WC	5	Grzegory, I., et al., "Seeded growth of GaN at high N <sub>2</sub> pressure on (0 0 0 1) polar surfaces of GaN single crystalline substrates", Materials Science in Semiconductor Processing, Vol. 4, No. 6, December 2001, pages 535-541, XP004345737
WC	6	Liu, L. et al., "Substrates for gallium nitride epitaxy", Materials Science and Engineering R, Reports: A Review Journal, Vol. 37, No. 3, 30 April 2002, pages 61-127, XP004349792
WC	7	Marchand, H., et al., "Mechanisms of lateral epitaxial overgrowth of gallium nitride by metalorganic chemical vapor deposition", Journal of Crystal Growth, Vol. 195, No. 1-4, 15 December 1998, pages 328-332, XP004154283
WC	8	Mills, Alan, "Wide-bandgap emitters continue to improve", III-Vs Review, Vol. 13, No. 3, May 2000, pages 23-24, 26, 28-30, XP004200697
WC	9	Sasaki, T., et al., "Substrate-orientation dependence of GaN single-crystal films grown by metalorganic vapor-phase epitaxy", Journal of Applied Physics, American Institute of Physics, Vol. 61, No. 7, 01 April 1987, pages 2533-2540, XP000820119
WC	10	Sun, Chien-Jen, et al., "Comparison of the physical properties of GaN thin films deposited on (0001) and (0112) sapphire substrates", Applied Physics Letters, Vol. 63, No. 7, 1993, pages 973-975, XP002251480
WC	11	Amano, H., et al., "Metalorganic vapor phase epitaxial growth of a high quality GaN film using an AlN buffer layer" Appl. Phys. Lett. 48 (5), 3 February 1986, pp 353-355

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\*Substitute Disclosure Statement Form (PTO-1449)

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NON-PATENT DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
WC	12	Ambacher, O., et. al., "Two-dimensional electron gases induced by spontaneous and piezoelectric polarization charges in N- and Ga-face AlGaN/GaN heterostructures" J. Appl. Phys., 85 (6), 15 March 1999, pp. 3222-3233
WC	13	Bottcher, T., et al., "The role of high-temperature island coalescence in the development of stresses in GaN films" Appl. Phys. Lett. 78 (14), 2 April 2001, pp. 1976-1978
WC	14	Brandt, O., et al., "Determination of strain state and composition of highly mismatched group-III nitride heterostructures by x-ray diffraction" J. Phys. D. Appl. Phys. 35 (2002), pp. 577-585
WC	15	Craven, M.D., et al., "Characterization of a-Plane GaN/(Al,Ga)N Multiple Quantum Wells Grown via Metalorganic Chemical Vapor Deposition" Jpn. J. Appl. Phys. Vol. 42, (2003), pp. L235-L238
WC	16	Craven, M.D., et al., "Threading dislocation reduction via laterally overgrown nonpolar (1120) a-plane GaN" Appl. Phys. Lett. 81 (7), 12 August 2002, pp. 1201-1203
WC	17	Dovidenko, K., et al., "Characteristics of stacking faults in AlN thin films J. Appl. Phys. 82 (9), 1 November 1997, pp. 4296-4299
WC	18	Eastman, L.F., "The Toughest Transistor Yet" IEEE Spectrum 39 (5), May 2002, pp. 28-33
WC	19	Eddy, C.R., Jr., "Growth of gallium nitride thin films by electron cyclotron resonance microwave plasma-assisted molecular beam epitaxy" J. Appl. Phys. 73 (1), 1 January 1993, pp. 448-455
WC	20	Etzkorn, E.V., et al., "Cracking of GaN films" J. Appl. Phys. 89 (2), 15 January 2001, pp. 1025-1034
WC	21	Freitas, J. A., Jr., et al., "Optical characterization of lateral epitaxial overgrown GaN layers" Appl. Phys. Lett. 72 (23), 8 June 1998, pp. 2990-2992
WC	22	Grandjean, N., et al., "Built-in electric-field effects in wurtzite AlGaN quantum wells" J. Appl. Phys. 86 (7), 1 October 1999, pp. 3714-3720
WC	23	Heying, B., et al., "Role of threading dislocation structure on the x-ray diffraction peak widths in epitaxial GaN films" Appl. Phys. Lett. 68 (5), 29 January 1996, pp. 643-645
WC	24	I. J. Seo, et. al., "Reduction of oscillator strength due to piezoelectric fields in GaN/Al <sub>x</sub> Ga <sub>1-x</sub> N quantum wells" Phys. Rev. B. 57 (16), 15 April 1998-II, pp. R9435-R9438.
WC	25	Iwata, K., et. al., "Gas Source Molecular Beam Epitaxy Growth of GaN on C-, A-, R-, and M-Plane Sapphire and Silica Glass Substrates" Jpn. J. Appl. Phys. Vol. 36 (1997), pp. L 661-L664
WC	26	Kapolnek, D., et al., "Anisotropic epitaxial lateral growth in GaN selective area epitaxy" Appl. Phys. Lett. 71 (9), 1 September 1997, pp. 1204-1206.
WC	27	Langer, R., et al., "Giant electric fields in unstrained GaN single quantum wells" Appl. Phys. Lett., 74 (25), 21 June 1999, pp. 3827-3829
WC	28	Lefebvre, P. et al., "High internal electric field in a graded-width InGaN/GaN quantum well: Accurate determination by time-resolved photoluminescence spectroscopy" Appl. Phys. Lett. 78 (9), 26 February 2001, pp. 1252-1254
WC	29	Lefebvre, P., et al., "Time-resolved photoluminescence as a probe of internal electric fields in GaN-(GaAl)N quantum wells" Phys. Rev. B. 59 (23), 15 June 1999-I, pp. 15363-15367
WC	30	Lei, T., "Heteroepitaxy, polymorphism, and faulting in GaN thin films on silicon and sapphire substrates" J. Appl. Phys. 74 (7), 1 October 1993, pp. 4430-4437
WC	31	Leroux, M., "Barrier-width dependence of group-III nitrides quantum-well transition energies" Phys. Rev. B. 60 (3), 15 July 1991-I, pp. 1496-1499

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NON-PATENT DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
WC	32	Leszczynski, M., et. al., "Lattice parameters of gallium nitride" Appl. Phys. Lett. 69 (1), 1 July 1996, pp. 73-75	
WC	33	Marchand, H., et al., "Microstructure of GaN laterally overgrown by metalorganic chemical vapor deposition" Appl. Phys. Lett. 73 (6), 10 August 1998, pp. 747-749	
WC	34	Marchand, H., et al., "Atomic force microscopy observation of threading dislocation density reduction in lateral epitaxial overgrowth of gallium nitride by MOCVD" MRS Internet J. Nitride Semicond. Res. 3, 3 (1998), pp. 1-7	
WC	35	Metzger, Th., et. al., "X-Ray Diffraction Study of Gallium Nitride Grown by MOCVD" Physica status solidi (b) 193, 1996, pp. 391-7	
WC	36	B. Monemar, et. al., "Properties of Zn-doped VPE-grown GaN.I. Luminescence data in relation to doping conditions" J. Appl. Phys. 51 (1), January 1980, pp. 625-639	
WC	37	Moustakas, T.D., et. al., "Growth of GaN by ECR-assisted MBE" Physica B 185, 1993, pp. 36-49	
WC	38	Motoki, J., et al., "Preparation of Large Freestanding GaN Substrates by Hydride Vapor Phase Epitaxy Using GaAs as a Starting Substrate" Jpn. J. Appl. Phys. Vol. 40 (2), (2001), pp. L140-L143	
WC	39	Nakamura, S. et. al., "Violet InGaN/GaN/AlGaN-Based Laser Diodes Operable at 50°C with a Fundamental Transverse Mode" Jpn. J. Appl. Phys. 38 (2), 1999, pp. L226-L229	
WC	40	Nam, O., et. al., "Lateral epitaxy of low defect density GaN layers via organometallic vapor phase epitaxy" Appl. Phys. Lett. 71 (18), 3 November 1997, pp. 2638-2640	
WC	41	Nataf, G., et. al., "Lateral overgrowth of high quality GaN layers on GaN/Al <sub>2</sub> O <sub>3</sub> patterned substrates by halide vapour-phase epitaxy" J. of Crystal Growth (192), 20 February 1998, pp. 73-78	
WC	42	Ng, H. M., "Molecular-beam epitaxy of GaN/Al <sub>1-x</sub> G <sub>x</sub> N multiple quantum wells on R-plane (1012) sapphire substrates" Appl. Phys. Lett. 80 (23), 10 June 2002, pp. 4369-4371	
WC	43	Nishida, T., et al., "Ten Milliwatt Operation of an AlGaN-Based Light Emitting Diode Grown on GaN Substrate" Phys. Stat. Sol. (a) 188 (1), 2001, pp. 113-116	
WC	44	Park, S., et. al., "Spontaneous polarization effects in wurtzite GaN/AlGaN quantum wells and comparison with experiment" Appl. Phys. Lett. 76 (15), 10 April 2000, pp. 1981-1983	
WC	45	Park, J., et. al., "Selective-area and lateral epitaxial overgrowth of III-N materials by metal organic chemical vapor deposition" Appl. Phys. Lett. 73 (3), 20 July 1998, pp. 333-335	
WC	46	Parillaud, O., et al., "Localized Epitaxy of GaN by HVPE on patterned Substrates" MRS Internet J. Nitride Semicond. Res. 3 (40), 19 October 1998, pp. 1-9	
WC	47	Paskova, T., et al., "Defect Reduction in HVPE Growth of GaN and Related Optical Spectra" Phys. Stat. Sol. (a) 183, (2001), pp. 197-203	
WC	48	Rosner, S.J., et. al., "Cathodoluminescence mapping of epitaxial lateral overgrowth in gallium nitride" Appl. Phys. Lett. 74 (14), 5 April 1999, pp. 2035-2037	
WC	49	Sakai, A., et al., "Self-organized propagation of dislocations in GaN films during epitaxial lateral overgrowth" Appl. Phys. Lett. 76 (4), 24 January 2000, pp. 442-444	
WC	50	Sano, M., et al., "Epitaxial Growth of Undoped and Mg-Doped GaN" Jpn. J. of Appl. Phys. 15 (10), October 1976, pp. 1943-1950	
WC	51	Shintani, A., et al. "Light Emitting Patterns of Gallium Nitride Electroluminescence" J. Electrochem. Soc. 123 (10), October 1976, pp. 1575-1578	
WC	52	Smorchkova, I.P., et al., "Polarization-induced charge and electron mobility in AlGaN/GaN heterostructures grown by plasma-assisted molecular-beam epitaxy" J. Appl. Phys. 86 (8), 15 October 1999, pp. 4520-4526	

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NON-PATENT DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
WC	53	Takeuchi, T., et. al., "Determination of piezoelectric fields in strained GaInN quantum wells using the quantum-confined Stark effect" Appl. Phys. Lett. 73 (12), 21 September 1998, pp. 1691-1693
WC	54	Takeuchi, T., et. al., "Quantum-Confined Stark Effect due to Piezoelectric Fields in GaInN Strained Quantum Wells" Jpn. J. Appl. Phys. Vol. 36, 1 April 1997, pp. I.382-385
WC	55	Tan, I-H., et. al., "A self consistent solution of Schrodinger-Poisson equations using a nonuniform mesh" J. Appl. Phys. 68 (8), 15 October 1990, pp. 4071-4076
WC	56	Tsuchiya, H., et al., "Growth condition dependence of GaN crystal structure on (0 0 1)GaAs by hydride vapor-phase epitaxy" J. of Crystal Growth (189/190), 1998, pp.395-400
WC	57	Walterreit, P., et. al., "Nitride semiconductors free of electrostatic fields for efficient white light-emitting diodes" Nature Vol. 406, 24 August 2000, pp. 865-868
WC	58	Wright, A.F., "Elastic properties of zinc-blende and wurtzite AlN, GaN, and InN" J. Appl. Phys. 82 (6), 15 September 1997, pp. 2833-2839
WC	59	Yablonovitch, E., et. al., "Reduction of Lasing Threshold Current Density by the Lowering of Valence Band Effective Mass" J. of Lightwave Tech. Vol. LT-4 (5), May 1986, pp. 504-506
WC	60	Zheleva, T., et. al., "Dislocation density reduction via lateral epitaxy in selectively grown GaN structures" Appl. Phys. Lett. 71 (17), 27 October 1997, pp. 2472-2474
WC	61	Zheleva, T., et. al., "Pendo-epitaxy- A new approach for lateral growth of gallium nitride structures" MRS Internet J. Nitride Semicond. Res. 4S1, G3.38 (1999)
WC	62	Yu., Z., et. al., "Epitaxial lateral overgrowth of GaN on SiC and sapphire substrates" MRS Internet J. Nitride Semicond. Res. 4S1, G4.3 (1999)
WC	63	Kinoshita et al., "Emission Enhancement of GaN/AlGaN Single-Quantum-Wells Due to Screening of Piezoelectric Field", MRS Internet J. Nitride Semicond. Res. 5, W11.32 (2000)
WC	64	Leroux et al., "Quantum confined Stark effect due to built-in internal polarization fields in (Al,Ga)N/GaN quantum wells", Phys. Rev. B 58, R113371 (1998)
WC	65	Kuokstis et al., "Polarization effects in photoluminescence of C- and M-plane GaN/AlGaN multiple quantum wells", Appl. Phys. Lett. 81, 4130 (2002)
WC	66	Bhattacharyya et al., "Comparative study of GaN/AlGaN MQWs grown homoepitaxially on (1 1 0 0) and (0001) GaN", Crystal Growth 251, 487 (2003)
WC	67	Bernardini et al., "Spontaneous polarization and piezoelectric constants of III-V nitrides", Phys. Rev. B 56, R10024 (1997)
WC	68	Langer et al., "Giant electric fields in unstrained GaN single quantum wells", Appl. Phys. Lett. 74, 3827 (1999)
WC	69	Traetta et al., "Effects of the spontaneous polarization and piezoelectric fields on the luminescence spectra of GaN/Al <sub>0.15</sub> Ga <sub>0.85</sub> N quantum wells", Physica E 7, 929-933 (2000)
WC	70	Keller et al., "Metalorganic Chemical Vapor Deposition Growth of High Optical Quality and High Mobility GaN", J. Electronic Materials Vol. 24, pgs 1707-1709 (1995)
WC	71	Chakraborty et al., "Nonpolar InGaN/GaN emitters on reduced-defect lateral epitaxially overgrown a-plane GaN with drive-current-independent electroluminescence emission peak", Applied Physics Letters Vol. 85 No. 22, (11/29/04)
WC	72	Chitnis et al., "Visible light-emitting diodes using a-plane GaN-InGaN multiple quantum wells over r-plane sapphire", Applied Physics Letters Vol. 84 No. 18 (05/03/04)
WC	73	Gardner et al., "Polarization anisotropy in the electroluminescence of m-plane InGaN-GaN multiple-quantum-well light-emitting diodes", Applied Physics Letters 86, 111101 (2005)
WC	74	Vanflect et al., "Defects in m-face GaN films grown in halide vapor phase epitaxy on LiAlO <sub>2</sub> ", Applied Physics Letters, Vol. 83 No. 6 (08/11/03)

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WC	75	Haskell et al., "Defect reduction in (1120) a-plane gallium nitride via lateral epitaxial overgrowth by hydride vapor-phase epitaxy", Applied Physics Letters, Vol. 83 No. 4 (07/28/03)
WC	76	Yue Jun Sun et al., "In surface segregation in M-plane (In,Ga)N/GaN multiple quantum well structures", Applied Physics Letters, Vol. 83 No. 25 (12/22/03)
WC	77	Bigenwald et al., "Confined Excitons in GaN-AlGaN Quantum Wells", Phys. Stat. Sol. (b) 216, 371 (1999)
WC	78	Im, J.S. et al., "Reduction of oscillator strength due to piezoelectric fields in GaN/Al <sub>x</sub> Ga <sub>1-x</sub> N quantum wells", Phys. Rev. B, Vol. 57 No. 16 (04/15/98)
WC	79	Nam, Ok-Hyun et al., "Lateral epitaxy of low defect density GaN layers via organometallic vapor phase epitaxy", Appl. Phys. Lett. 71 (18) (11/03/97)
WC	80	Zheleva et al., "Dislocation density reduction via lateral epitaxy in selectively grown GaN structures", Appl. Phys. Lett. 71 (17) (10/27/97)
WC	81	Yue Jun Sun et al., "Nonpolar In <sub>x</sub> Ga <sub>1-x</sub> N/GaN(1100) multiple quantum wells grown on $\gamma$ -LiAlO <sub>2</sub> (100) by plasma-assisted molecular-beam epitaxy", Physical Review B 67 (2003)
WC	82	Takeuchi et al., "Theoretical Study of Orientation Dependence of Piezoelectric Effects in Wurtzite Strained GaInN/GaN Heterostructures and Quantum Wells", Jpn. J. Appl. Phys. Vol. 39, pp. 413-416, Part 1, No. 2A (February 2000)
WC	83	Grandjean et al., "Self-limitation of AlGaN/GaN quantum well energy by built-in polarization field", Applied Physics Letters, Vol. 74, No. 16 (April 19, 1999)
WC	84	Amano et al., "Stress and Defect Control in GaN Using Low Temperature Interlayers", Jpn. J. Appl. Phys., Vol. 37 (1998)
WC	85	Mukai et al., "Ultraviolet InGaN and GaN Single-Quantum-Well-Structure Light-Emitting Diodes Grown on Epitaxially Laterally Overgrown GaN Substrates", Jpn. J. Appl. Phys., Vol. 38, pp. 5735-5739 (1999)
WC	86	Miller et al., "Electric field dependence of optical absorption near the band gap of quantum-well structures", The American Physical Society, Physical Review B, Vol. 32, No. 2 (July 15, 1985)
WC	87	Pearton et al., "GaN: Processing, defects, and devices", Applied Physics Reviews, Journal of Applied Physics, Vol. 86, No. 1 (July 1, 1999)
WC	88	S. Nakamura and G. Fasol, The Blue Laser Diode, (Springer, Heidelberg, 1997), pp. 160-178

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## FOREIGN PATENTS

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WC	T. Gehrke et al., "Pendo-Epitaxy of Gallium Nitride and Aluminum Nitride Films and Heterostructure on Silicon Carbide Substrate," MRS Internet J. Semicond. Res. 4S1, G3.2, 1999, 6 pp.
WC	M. Iwaya et al., "Reduction of Etch Pit Density in Organometallic Vapor Phase Epitaxy-Grown GaN on Sapphire by Insertion of a Low-Temperature-Deposited Buffer Layer Between High-Temperature-Grown GaN," Jpn. J. Appl. Phys., 1998, 37: L316-L318
WC	S. Keller et al., "Spiral Growth of InGaN Nanoscale Islands on GaN," Jpn. J. Appl. Phys., 1998, 37: L431-L434
WC	P. Kozodoy et al., "Electrical Characterization of GaN $p-n$ Junctions With and Without Threading Dislocations," Appl. Phys. Lett., 1998, 73(7): 975-977
WC	S. Nakamura et al., "InGaN/GaN/AIGaN-Based Laser Diodes with Modulation-Doped Strained-Layer Superlattices Grown on an Epitaxially Laterally Overgrown GaN Substrate," Appl. Phys. Lett., 1998, 72(2): 211-213
WC	G. Parish et al., "High-Performance (Al,Ga) N-Based Solar-Blind Ultraviolet $p-i-n$ Detectors on Laterally Epitaxially Overgrown GaN," Appl. Phys. Lett., 1999, 75(2): 247-249
WC	V. Srikant et al., "Mosaic Structure in Epitaxial Thin Films Having Large Lattice Mismatch," J. Appl. Phys., 1997, 82(9): 4286-4295
WC	S. Tanaka et al., "Anti-Surfactant in III-Nitride-Epitaxy – Quantum Dot Formation and Dislocation Termination," Jpn. J. Appl. Phys., 2000, 39: L831-L834
WC	S. Tanaka et al., "Self-Assembling GaN Quantum Dots on $\text{Al}_x\text{Ga}_{1-x}\text{N}$ Surfaces Using a Surfactant," Appl. Phys. Lett., 1996, 69(26): 4096-4098
WC	A. Usui et al., "Thick GaN Epitaxial Growth with Low Dislocation Density by Hydride Vapor Phase Epitaxy," Jpn. J. Appl. Phys., 1997, 36: L899-L902

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<b>Form 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b> <b>IN AN APPLICATION</b>	<b>Docket Number: G&amp;C 30794.93-US-WO</b> <b>Applicant: Benjamin A. Haskell et al.</b> <b>Filing Date: June 6, 2005</b>	<b>Application Number 10/537,644</b> <b>Group Art Unit: 2823</b>
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